

On-Time Performance

Introduction

We have recently standardized the way we calculate our on-time performance in order to provide more consistent and accurate results. This page explains how we gather and analyze our data. The following pages show On-Time data results for the past month. The appendix includes on-time performance data analyzed by route.

Procedures

1. SQL Queries

- Our Streets Database contains data collected through Automatic Vehicle Location (AVL)
- Compares the AVL data to the scheduled times for each route
- Query generates a table which includes Route Name, Pattern Name, Stop Name, Scheduled Departure Times, and Actual Departure Times

2. Removing Outliers

- Outliers can distort the accuracy of data with erroneous data brought on by AVL or user error
- Any data with a "Minutes Late" value outside of -5 and 15 will be considered an outlier

3. Range Analysis

- The total usable data count is the count of the data that does not contain any outliers; this is the number used in percentage calculations
- The established On-Time range of "Minutes Late" values is between -1 and 3
- The established Late range of "Minutes Late" values is between 3 and 15
- The established Early range of "Minutes Late" values is between -5 and -1

On-Time Performance Results

FY19 December: Blacksburg Fixed Route

Date Range: December 1, 2018 – December 31, 2018

Total recorded departures from Timechecks: 21,493

Outliers (<-5 or >15): 319

Total departures used in calculations: 21,174

On-time Departures (-1 to 3): 19,790; 93.46%

Late departures (3 to 15): 1,202; 5.68%

Early departures (-5 to -1): 182; 0.86%

FY19 December: Christiansburg Fixed Route

Date Range: December 1, 2018 – December 31, 2018

Total recorded departures from Timechecks: 691

Outliers (<-5 or >15): 59

Total departures used in calculations: 632

On-time Departures (-1 to 3): 413; 65.35%

Late departures (3 to 15): 108; 17.09%

Early departures (-5 to -1): 111; 17.56%

Appendix

On Time Performance By Route, Fiscal Year 2019 December: Blacksburg

Route Name	Total Departures*	Early Departures	Late Departures	On Time Departures	% On Time Departures
Campus Shuttle	573	14	28	531	92.67%
Carpenter Blvd	387	0	24	363	93.80%
Corporate Research Center	1187	18	88	1081	91.07%
Harding Ave	1733	5	115	1613	93.08%
Hethwood	411	2	19	390	94.89%
Hethwood A	1646	8	114	1524	92.59%
Hethwood B	1659	2	114	1543	93.01%
Hokie Express	1517	3	30	1484	97.82%
Main Street - North	1600	69	79	1453	90.81%
Main Street - South	1632	19	86	1527	93.57%
Patrick Henry	1490	11	53	1426	95.70%
Progress B	372	21	22	329	88.44%
Progress Street	1696	2	33	1661	97.94%
Toms Creek	2257	2	227	2028	89.85%
Two Town Trolley	526	2	39	485	92.21%
University City Blvd	1793	4	104	1685	93.98%
University Mall Shuttle	694	1	39	654	94.24%

*Total departures excludes extreme outliers with values above 15 or below -5.

On Time Performance By Route, Fiscal Year 2019 December: Christiansburg

Route Name	Total Departures*	Early Departures	Late Departures	On Time Departures	% On Time Departures
BT Commuter	28	7	7	14	50.00%
Explorer Blue	0	0	0	0	0
Explorer Gold	0	0	0	0	0
The Explorer	603	105	101	398	66.00%

*Total departures excludes extreme outliers with values above 15 or below -5.